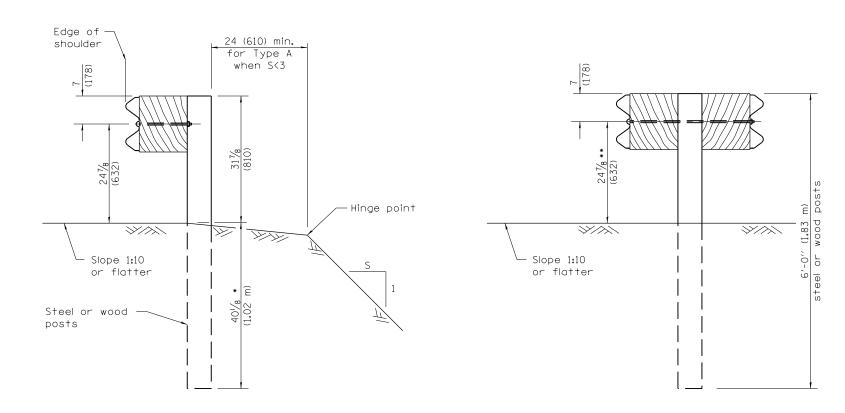


ELEVATION

TYPE A

6'-3" (1.905 m) Typical post spacing



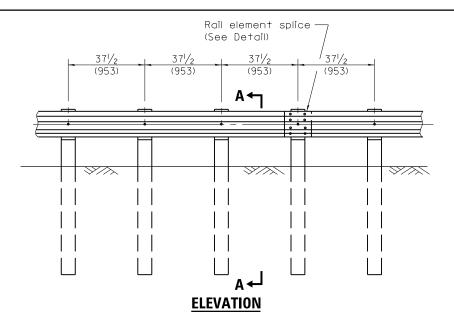
SECTION A-A

* When "S" is less than 3 and the distance from the back of post is less than 24 (610), the post shall be steel and the embedment shall be $76\frac{1}{8}$ (1934).

PASSED January 1. 2012 PASSED January 1. 2012 Michael Brand ENGINEER OF POLICY AND PROCEDURES APPROVED January 1. 2012 Fattach X ENGINEER OF DESIGN AND ENVIRONMENT

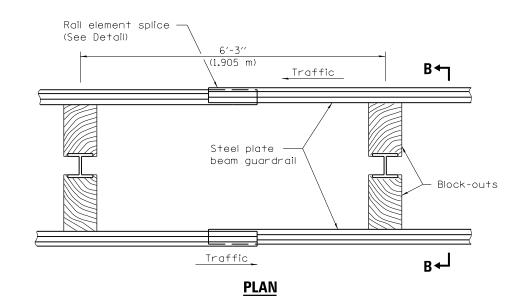
SECTION B-B

** When connecting Type D guardrail to an impact attenuator, adjust this dimension to 21\(^7\)\(_8\) (556) over a distance of 25'-0'' (7.62 m) from point of connection.



TYPE B

 $37\frac{1}{2}$ (953) Closed post spacing



TYPE D

Double steel plate beam guardrail 6'-3" (1.905 m) typical post spacing

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

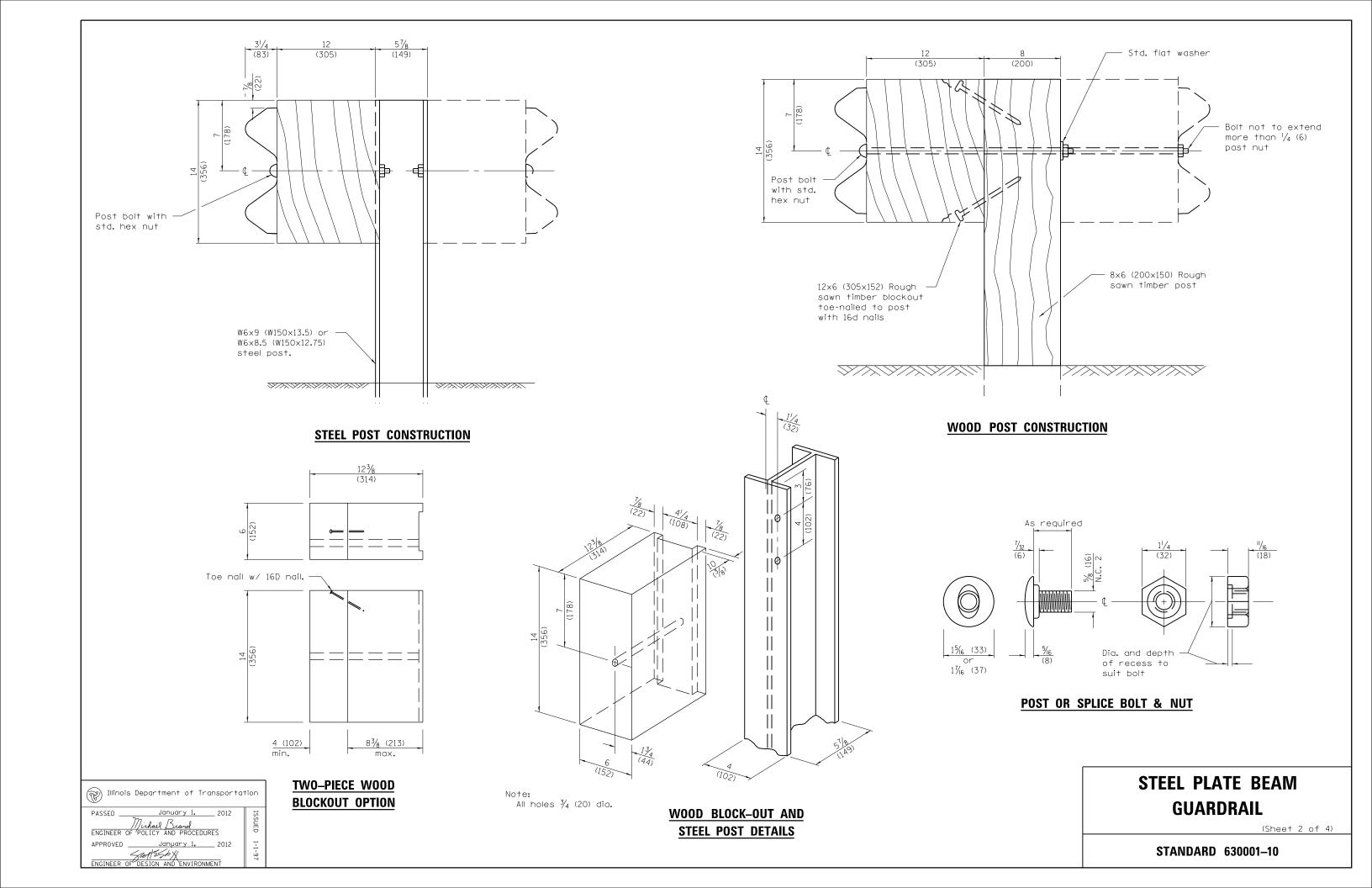
All dimensions are in inches (millimeters) unless otherwise shown.

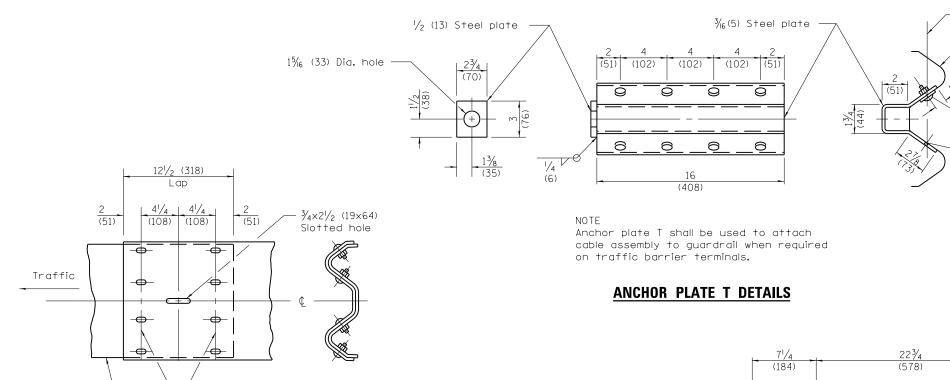
DATE	REVISIONS	
1-1-12	Added req. for 9 ft. posts	
	to be steel. Modified set	
	back of g'rail behind curb.	
1-1-11	Added note to Section B-B	H
	for conn. to impact att.	
	Revised table on Sheet 4.]

STEEL PLATE BEAM GUARDRAIL

(Sheet 1 of 4)

STANDARD 630001–10





RAIL ELEMENT SPLICE

Class A rail

element

27½± (700±)

θ

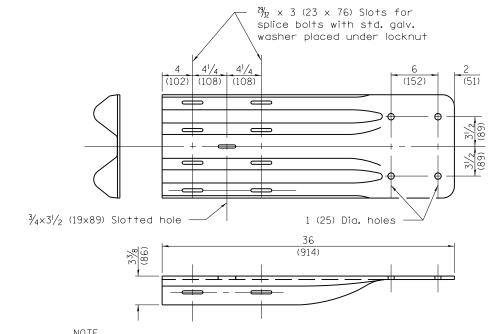
8½ (216)

θ

Class A

rail element

6¹/₄ (159)



 $^{29}\!\!/_{32}$ \times $1^{1}\!/_{8}$ (23 \times 76) Slotted holes for $^{5}\!/_{8}$ (M16) splice bolts

When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

The standard end shoe shall be attached to the concrete with pre-drilled or self-drilling anchor bolts. The anchor cone shall be set flush with the surface of the concrete.

Externally threaded studs protruding from the surface of the concrete will not be permitted.

END SHOE

$\frac{7^{1}/4}{(184)} = \frac{22^{3}/4}{(578)}$ $\frac{3}{(76)} = \frac{4^{1}/4}{(108)} = \frac{4^{1}/4}{(108)} = \frac{4^{1}/4}{(108)} = \frac{4^{1}/4}{(108)} = \frac{2}{(51)}$ $\frac{3}{(108)} = \frac{4^{1}/4}{(108)} = \frac{4^{1}/4}{(108)} = \frac{4^{1}/4}{(108)} = \frac{2}{(51)}$ $\frac{30}{(762)} = \frac{30}{(762)}$ $\frac{30}{(762$

Neutral axis

Rail element

Post bolt with washer on front face. (8 required)

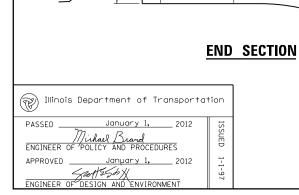
 $-\frac{3}{4}$ (20) Dia. hole

ALTERNATE END SHOE

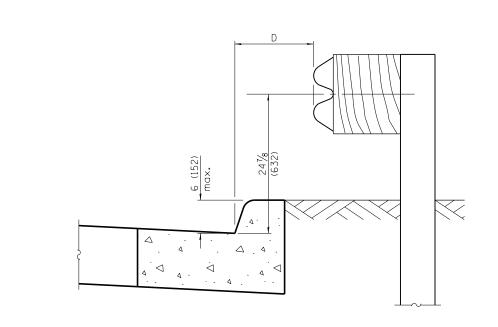
STEEL PLATE BEAM GUARDRAIL

(Sheet 3 of 4)

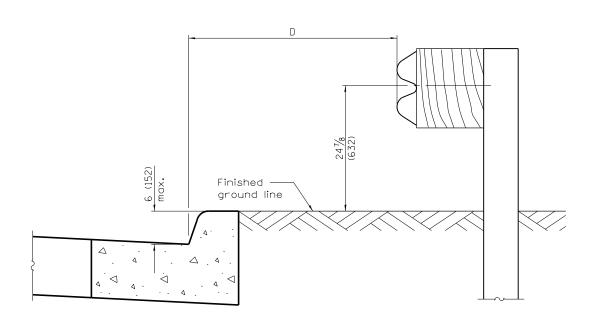
STANDARD 630001-10



121/4



 $0 \le D < 4'-0'' (1.2 m)$

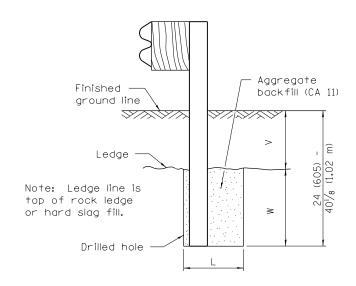


4'-0" (1.2 m) \leq D \leq 12'-0" (3.7 m)

PLAN

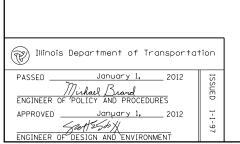
8 (203) min. (Steel post) 10 (250) min. (Wood post)

Optional round hole



ELEVATION

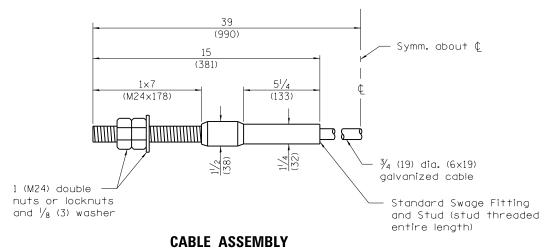
FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED



Steel Post Wood Post 0 - 6 24 23 (0 - 152) (610) (530)(580)> 6 - 18 (> 152 - 458) 14½ (368) 16½ (419) 18 (458) > 18 - 31 (> 458 - 787) 12 (305) 10 (203) (250) $> 31 - 40\frac{1}{8}$ (> 787 - 1.02 m) 12 - 0 (305 - 0) 8 (203) 10 (250)

GUARDRAIL PLACED BEHIND CURB

Note: 'D' shall not exceed 6 (152) for design speeds greater than 45 mph.



(40,000 lbs. (18,100 kg) min. breaking strength) Tighten to taut tension.

STEEL PLATE BEAM **GUARDRAIL**

(Sheet 4 of 4)

STANDARD 630001-10